

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22 (cancelled).

Claim 23 (currently amended): ~~The exchanger according to Claim 11, wherein oxygen comprises more than about 60% of the total feed gas of said exchanger~~ An air separation apparatus comprising

i) at least one column

ii) at least one heat exchanger which further comprises:

a) at least two stacked dividing plates with a roughly uniform thickness (e)

b) at least one passage between the plates

c) at least one fin in a first one of the at least one passage wherein the ratio of the minimum thickness (e') of the each said fin to the thickness of each said dividing plate (e) is greater than about 0.8

iii) means for sending a liquid containing more than 60% mol. oxygen to the heat exchanger; and

iv) means for removing vaporised liquid containing more than 60% mol. oxygen from the heat exchanger.

Claim 24 (new) The apparatus of Claim 23 wherein the the ratio of the minimum thickness (e') of the each said fin to the thickness of each said dividing plate (e) is greater than about 1.

Claim 25 (new) The apparatus of Claim 24 wherein the the ratio of the minimum thickness (e') of the each said fin to the thickness of each said dividing plate (e) is greater than about 1.5.

Claim 26 (new) The apparatus of Claim 25 wherein the the ratio of the minimum thickness (e') of the each said fin to the thickness of each said dividing plate (e) is greater than about 2.

Claim 27 (new) The apparatus of Claim 23 wherein the thickness of each of the dividing plates is between 0.6 and 2 mm.

Claim 28 (new) The apparatus of Claim 23 comprising two columns connected thermally to one another via the exchanger.

Claim 29 (new) The apparatus of Claim 23 wherein the fins are made of aluminum.

Claim 30 (new) The apparatus of Claim 23 where the column is a double column.

Claim 31 (new) A process for separating air in a plant including a column and at least one heat exchanger which further comprises:

- a) at least two stacked dividing plates with a roughly uniform thickness (e)
 - b) at least one passage between the plates
 - c) at least one fin in a first passage wherein the ratio of the minimum thickness (e') of the each said fin to the thickness of each said dividing plate (e) is greater than about 0.8
- comprising the steps of separating air in the column, sending a liquid containing more than 60% mol. oxygen from the column to the heat exchanger and removing vaporised liquid containing more than 60% mol. oxygen from the heat exchanger.